
1.0 Assessment of Existing Conditions

Columbia Heights/Mount Pleasant Transportation Study

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■ 1.1 Introduction

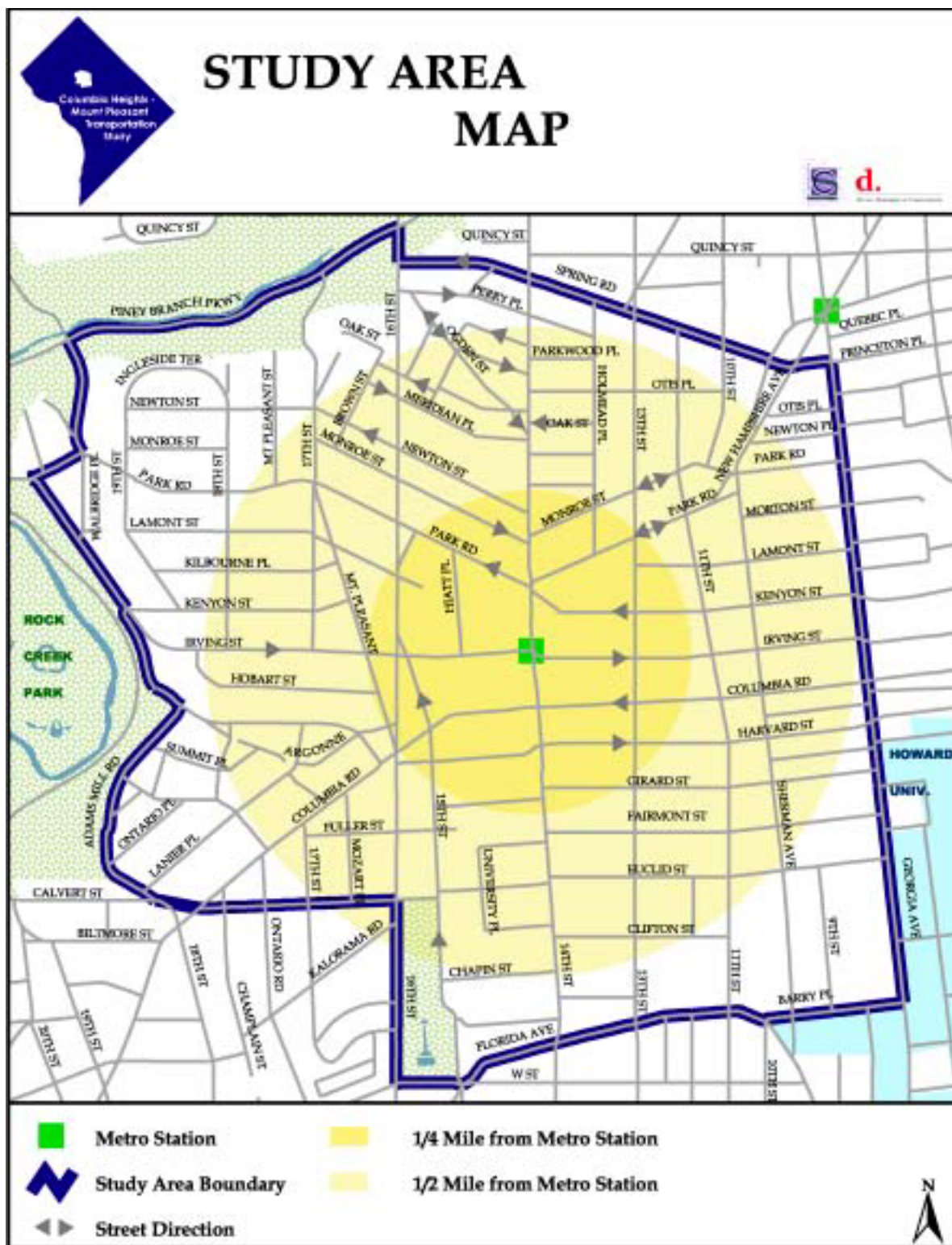
DDOT is leading an effort to address transportation issues proactively in the Columbia Heights and Mount Pleasant neighborhoods. These neighborhoods are undergoing a significant amount of change, with a number of large-scale commercial, retail, and residential developments underway. This study is intended to review current transportation issues in the neighborhood and identify a series of short- and long-term improvements that will enhance the operation and condition of transportation in the neighborhoods.

This section was the first product of the study and summarizes existing conditions. Figure 1.1 illustrates the boundaries of the study area. The emphasis of this study is on the area within one-quarter mile of the Columbia Heights Metrorail Station. Key elements summarized in this section consist of:

- Demographics/Land Use;
- Existing Traffic Characteristics;
- Pedestrian/Bicycle Issues;
- Transit Services; and
- Existing Parking Characteristics.

This analysis provides the framework for defining short-term and long-term transportation options. Issues identified in this section, together with input from neighborhood residents, will serve as the basis for identifying recommended transportation improvements.

Figure 1.1 Study Area Map



■ 1.2 Demographics and Land Use

Neighborhood Population is Increasing

The 2000 U.S. Census reported that Columbia Heights/Mount Pleasant study area contains approximately 50,210 residents, an increase from 48,430, or almost four percent, since 1990. This population increase has occurred despite an overall decline in the total population of the District of Columbia. This portion of the City now represents almost nine percent of the District's population.

Many Neighborhood Residents Choose Not to Drive

Travel characteristics in the neighborhood support the need to focus on all forms of transportation, particularly transit and pedestrian travel. Available data indicates that alternative forms of transportation play a key role in the study area's transportation system. Overall, 44 percent of residents in the study area use transit to commute to work in comparison to the District average of just 33 percent. Just 26 percent of area residents drive alone to work, in comparison to the District average of 38 percent.

There is some variation in mode choice within the study area. As shown in Figure 1.2, the southeastern portion of the study area has the highest percentage of commuters walking or bicycling to work, at 22 percent in comparison to 13 percent on average for the District. The highest proportion of auto use is found in the northwest portion of the study area, primarily consisting of the Mount Pleasant neighborhood, where 30 percent drive alone to work.

Significant New Development Planned

The study area contains a diverse mix of commercial, residential, and institutional land uses. Commercial land uses are found primarily along Georgia Avenue, 14th Street, Mount Pleasant Street, and Columbia Road. The remainder of the study area is primarily residential with a mix of row houses, low-rise apartment buildings, and single-family homes. A number of medium- to moderate-density residential apartment homes are located along 16th Street. Churches, community centers, and public schools also are located throughout the neighborhood.

Revitalization and redevelopment efforts are underway throughout the study area. The National Capital Revitalization Corporation (NCRC) along with its subsidiary, RLA Revitalization Corporation (RLARC), has initiated 11 development projects throughout the study area. These parcels are primarily located along the 14th Street corridor and near the Columbia Heights Metrorail Station. WMATA also has plans to develop a parcel it owns near the Columbia Heights Metrorail Station. A number of small, private, residential developments are underway throughout the neighborhood.

Figure 1.2 Commuting Mode

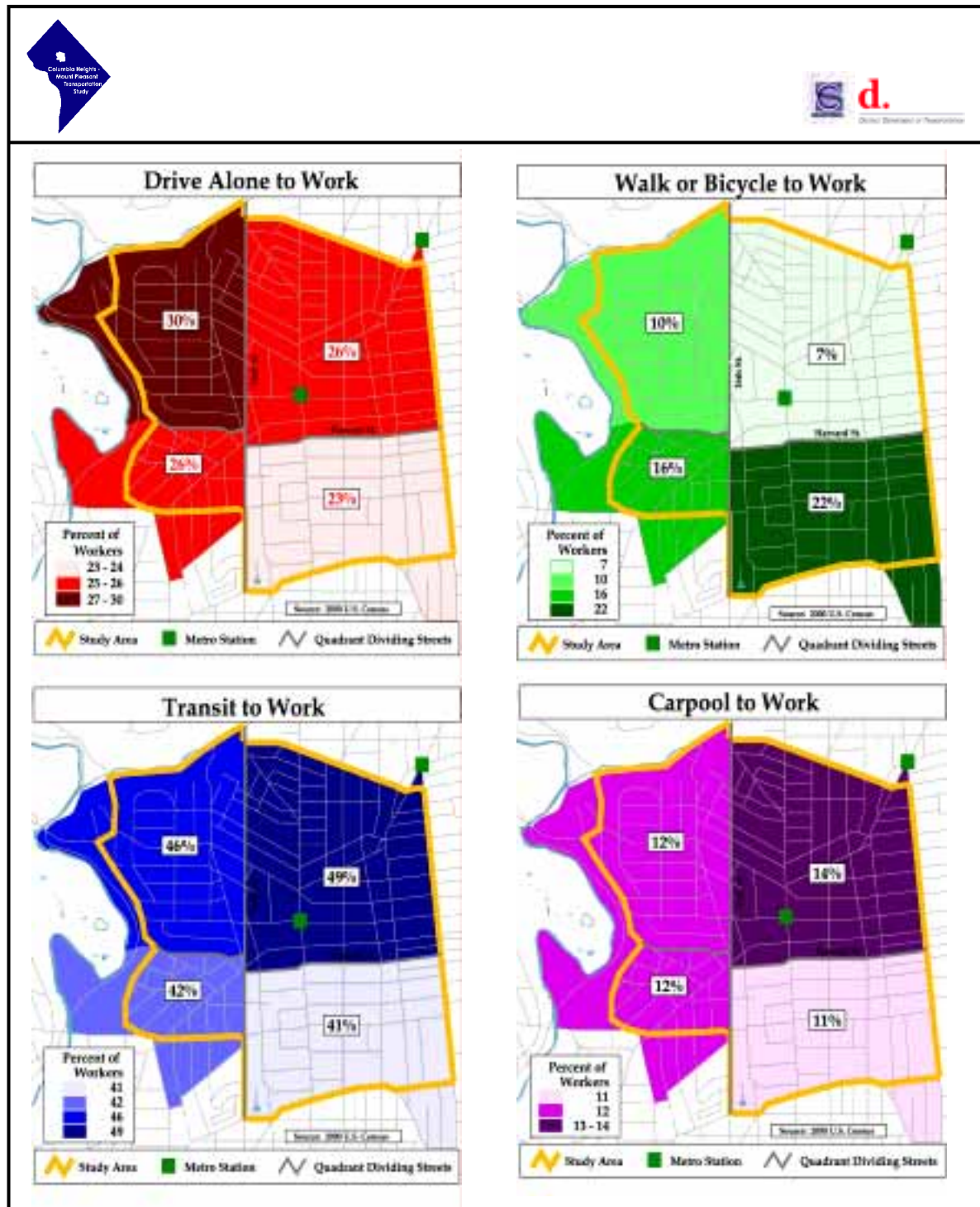


Table 1.1 Proposed Developments in Study Area

Parcel #	Developer	Location	Site Size	Use	Parking
<i>NCRC/RLA-Owned Parcels</i>					
24	Dance Institute	14 th /Monroe	14,075 sq. ft.	Institutional/Commercial	9
29	Tivoli Partners	1365 Park Road	2.79 acres	Commercial/Entertainment	259
38	NPCDC	14 th /Park/Kenyon	7,500 sq. ft.	Park/Civic	
27	Grid Properties	1400 Park Road	4.69 acres	Commercial	1,300
15	CHV/Victory Housing	1365 Irving Street	1.34 acres	Residential/Commercial	166
26	CHV	1444 Irving Street	2.69 acres	Residential/Commercial	242
40	Urban League	2901 14 th Street	N/A	Office	N/A
5	NPCDC	2746 14 th Street	24,000 sq. ft.	Residential/Commercial	70
19	Triangle	1330 Euclid	16,200 sq. ft.	Residential	20
11	Duron, Inc.	2511 14 th Street	N/A	Commercial	22
32	Triangle	1431 Chapin Street	15,000 sq. ft.	Residential	11
<i>WMATA-Owned Lot</i>					
Lot 78	Triangle	14 th /Park/Kenyon	40,709 sq. ft.	Residential/Commercial	109

Source: NCRC, Triangle.

The largest developments will take place on Parcels 29, 27, 15, and 26. Given the nature of surrounding development and high levels of transit service in the neighborhood, the expectation is that approximately half of all trips will arrive by means other than an automobile. A brief summary of major developments is provided below.

Parcel 29 (Tivoli Square) will be a mixed-use development including retail, office space, and housing, as well as the restoration of the Tivoli Theatre. The project includes:

- A 250-seat theater;
- A new supermarket; and
- 23 residential townhouses.

A Traffic Impact Analysis for this site was conducted in December 2000. This analysis concluded that the existing street network in the vicinity of Tivoli Square will be able to accommodate the future traffic levels after site development at an acceptable level of service “D.”

Parcel 27 will be a 546,000-square-foot retail and entertainment complex, also referred to as D.C. USA. This project is located across 14th Street from the Columbia Heights Metrorail Station. The project includes:

- Specialty retailers such as Target and Whole Foods;
- Restaurants and various entertainment and recreational uses including a bowling center and a health and fitness club; and
- Approximately 15,000 square feet of space allocated at below-market rents for local and minority-owned specialty retailers.

A Traffic Impact Analysis was conducted in December 2000. This analysis concluded that the development at Parcel 27 can be accommodated on the existing street network with an acceptable level of service “D.” This development is located adjacent to the Columbia Heights Metrorail Station.

Parcel 15 will consist of a group of multi-story apartment buildings with ground-level retail fronting 14th Street and is known as Columbia Heights Plaza. This project will include:

- Metro piazzas and a civic space;
- 135 rental apartments; and
- An affordable 60-unit senior living facility.

A traffic study for this project is expected to be released in summer 2003.

Parcel 26 is planned as a mix of retail and apartment units. Specific elements include:

- 21,000-square-foot ground-floor retail frontage located on Irving Street;
- 220 rental units; and
- 20 condominium units.

■ 1.3 Existing Traffic Characteristics

Study Area Served by Mix of Regional and Local Roadways

The streets within the study area fall within four categories of functional classification:

- Principal Arterial;
- Minor Arterial;

- Collector; and
- Local.

16th Street and Georgia Avenue are the principal arterials in the study area. Both 16th Street and Georgia Avenue are part of the National Highway System and are intended to serve regional traffic. As shown in Figure 1.3, the highest traffic volumes in the study area are found on 16th Street. A number of other neighborhood roadways also serve significant levels of traffic:

- Irving Street, Harvard Street, Columbia Road, and Park Road function as major east-west routes, as does Monroe Street to a lesser degree; and
- Sherman Avenue and 13th Street both function as commuter arterials between Downtown Washington, D.C., and outlying areas.

Alleys also constitute an important part of the street system as they provide access to parking areas, private garages, and back lots for neighborhood residents and commercial deliveries. Alleys provide internal block access and cross-block routes for pedestrians circulating through the neighborhood.

Local Freight Movement is Limited

In general, truck traffic within the study area is primarily limited to light trucks serving local destinations given the lack of industrial and warehousing facilities within close proximity. Twenty-four-hour traffic counts taken over the course of an average weekday at the intersection of Irving Street and 14th Street indicate that less than one percent of traffic is related to heavy trucks.

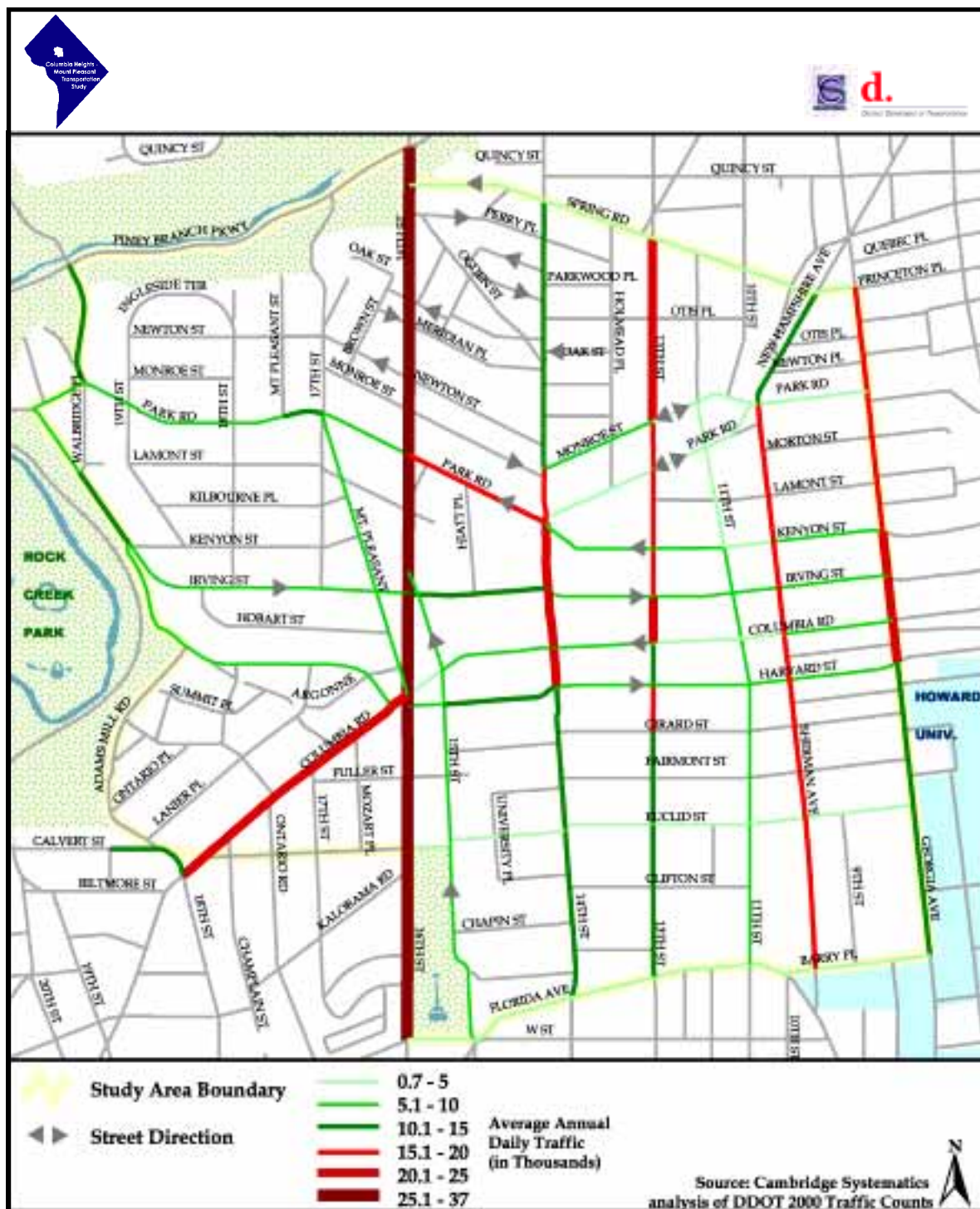
Table 1.2 Vehicle Classification Counts – 14th Street at Irving Street

	Auto	Buses	Light Trucks	Heavy Trucks
14 th Street Northbound	91.5%	3.1%	4.7%	0.7%
14 th Street Southbound	93.2	2.5	4.3	0.1
Irving Street Eastbound	89.5	1.9	7.7	0.9

Notes: Autos – all passenger vehicles; Light Trucks – single-unit trucks between two to five axles; Heavy Trucks – single-unit trucks of more than five axles and all multi-trailer trucks.

Source: Traffic volume counts by Daniel Consultants, Inc., analysis by Cambridge Systematics, Inc.

Figure 1.3 Study Area Traffic Volumes



Traffic Volumes Indicate Peak During Morning and Evening

Daily traffic counts were conducted on Irving and 14th Streets over a two-week period in spring 2003. These counts were taken on 14th Street between Irving Street and Columbia Road and on Irving Street between 14th Street and Hiatt Place. Figures 1.4 through 1.6 show the traffic volumes throughout the day. As would be expected, southbound traffic volumes on 14th Street are highest during the morning peak. Traffic volumes on 14th Street northbound are highest during the evening peak period. Over the course of a typical weekday, approximately 24,500 vehicles use this portion of 14th Street. Irving Street carries approximately 10,300 vehicular trips on an average weekday and traffic volumes are highest during the evening peak period.

Figure 1.4 14th Street – Southbound Weekday

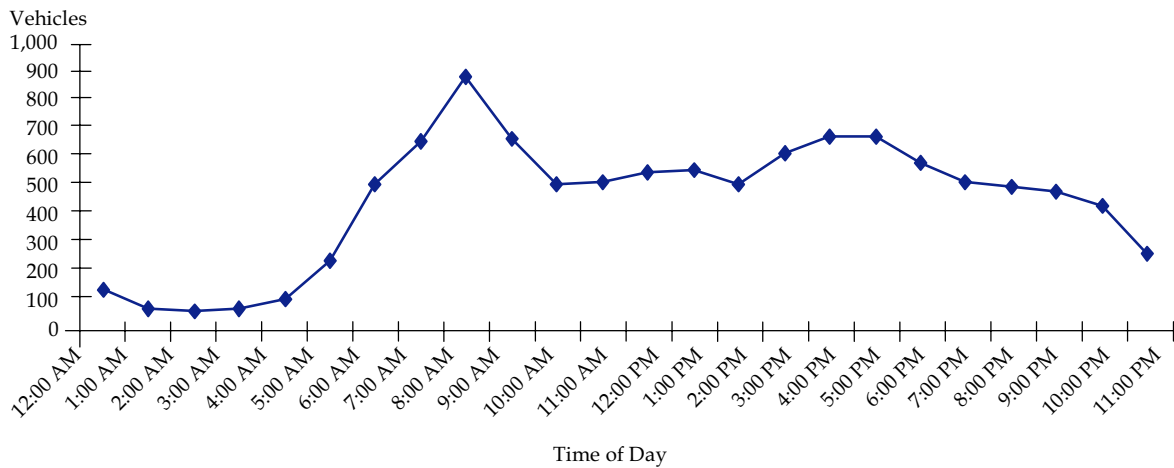
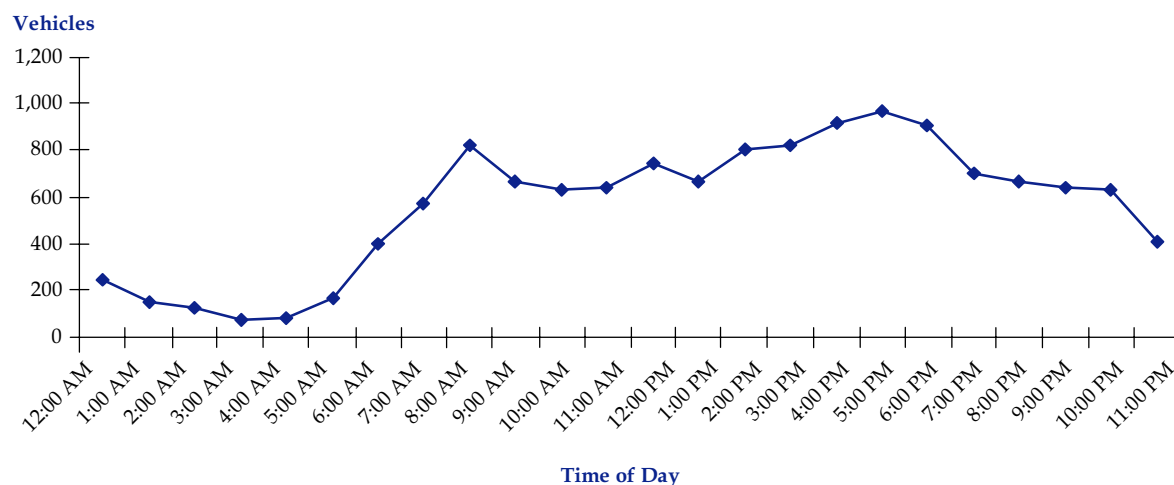
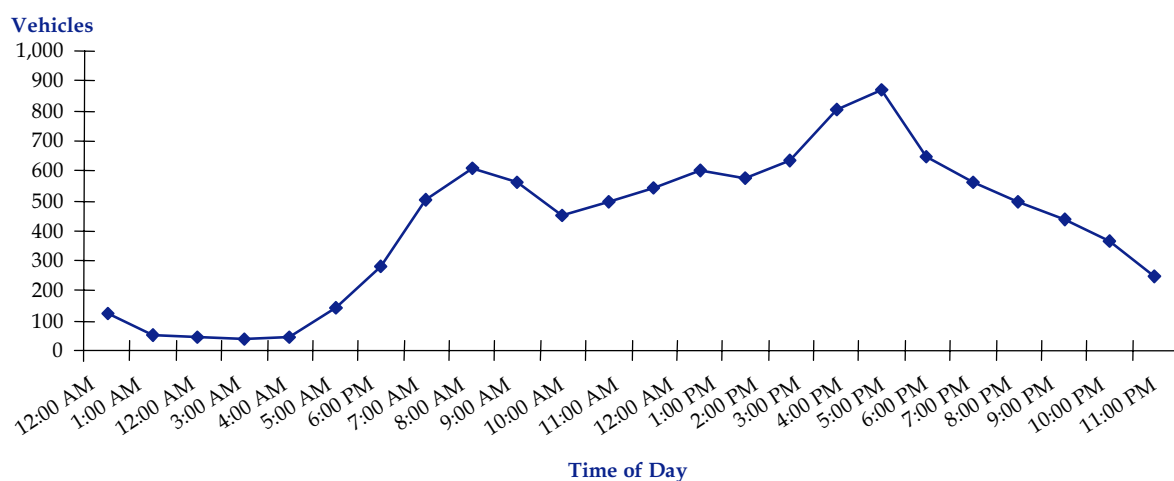


Figure 1.5 14th Street – Northbound Weekday**Figure 1.6 Irving Street – Eastbound Weekday**

Significant Commuter Traffic Passes Through the Neighborhood

Columbia Heights and Mount Pleasant are challenged by the large numbers of commuters that travel through the neighborhoods. Although the neighborhoods developed historically around transit and the pedestrian, they are now facing a tremendous influx of vehicles on a daily basis. Much of this commuter traffic is found on 16th Street and Georgia Avenue, but commuters also are using 14th Street, Sherman Avenue, and several of the east-west roadways, such as Columbia Road and Irving Street, on a regular basis. Commuters will continue to use streets through the neighborhood in large numbers. The

challenge is to accommodate these commuters while addressing neighborhood concerns regarding high speeds, pedestrian safety, and heavy traffic volumes.

As a part of this study, a general assessment was made as to the magnitude of commuter traffic during peak hours. License plate information was collected during the morning peak hours for automobiles traveling on potential commuter routes. Plates were classified as Maryland, Virginia, the District Columbia, and “Other” with the assumption that Maryland and Virginia plates likely represent commuters. In addition, a number of the District of Columbia registered vehicles also are likely commuters living in other neighborhoods either adjacent to or some distance from Columbia Heights and Mount Pleasant. Based on these observations, 16th Street and Georgia Avenue appear to carry the highest proportion of commuter traffic. Approximately 58 percent of vehicles headed southbound on 16th Street during the morning peak were registered in Maryland, and approximately 49 percent of the vehicles headed southbound on Georgia Avenue during the morning peak period had Maryland license plates.

Table 1.3 Origin of Traffic in Study Area

	State of Registration			
	D.C.	Maryland	Virginia	Other
Irving Street – East of 14 th Street				
Eastbound	64.2%	20.0%	11.0%	4.8%
Columbia Road – East of 14 th Street				
Westbound	58.3	26.8	11.0	3.9
Park Road – East of 14 th Street				
Westbound	68.7	21.3	7.5	2.5
Eastbound	55.7	29.5	5.7	9.1
16 th Street – North of Irving Street				
Northbound	56.5	20.3	18.4	4.8
Southbound	35.8	58.3	2.8	3.1
14 th Street – North of Irving Street				
Northbound	68.4	16.2	12.8	2.9
Southbound	56.6	36.4	4.3	2.7
Georgia Avenue – North of Irving Street				
Northbound	52.0	33.6	10.4	4.0
Southbound	42.0	49.0	5.9	3.1

Commuter traffic is not only headed toward downtown. Almost 20 percent of northbound traffic on 16th Street during the morning commute consists of Virginia drivers, indicating that 16th Street also is serving as a route for those traveling from Virginia through the District to locations to the north, such as downtown Silver Spring. Overall, 14th Street appears to carry a smaller proportion of through traffic, although still quite high.

Most Intersections Operating with an Adequate Level of Service

As a part of this study, 12 intersections were selected in coordination with neighborhood residents for a detailed assessment of traffic conditions. At each of these intersections, vehicle turning movement counts were conducted during two-hour morning and evening peak periods. In addition, turning movement counts were conducted for two hours during the midday on a typical Saturday.

Data collected at each of these 12 intersections was analyzed using the traffic signal software program SYNCHRO to estimate congestion at each intersection, defined by “level of service.” Level of service (LOS) for signalized intersections is defined in terms of average vehicle delay. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. It also is dependent on a number of variables such as the quality of the signal progression, the cycle length, and green time. Level of service was calculated for each approach to the 12 intersections and as an average for all approaches to an intersection.

Table 1.4 Definition of Level of Service

Description	Delay
A Little or no delay.	0-10 seconds
B Good progression and short cycle lengths.	> 10-20 seconds
C Fair progression, longer cycle lengths.	> 20-35 seconds
D The influence of congestion becomes noticeable. Some unfavorable progression and long cycle lengths.	> 35-55 seconds
E Poor progression, long cycle lengths, and cycle failures.	> 55-80 seconds
F Unacceptable to most drivers; arrival-flow rates exceed the capacity of the intersection.	> 80 seconds

Source: 2000 Highway Capacity Manual.

At present, most of the study area intersections are operating at a level of service of “D” or better during both morning and evening peak periods and on weekends. However, a number of individual approaches to intersections are operating at LOS of “E” or “F.”

Figures 1.7 through 1.9 show the LOS for each approach to the 12 intersections. Several of the approaches are operating at a LOS of “F”:

- Westbound Park Road at 16th Street (A.M. and P.M. Peak);
- Westbound Columbia Road at 16th Street (A.M. and P.M. Peak);
- Westbound Monroe Street at 14th Street (A.M. Peak);
- Southbound Adams Mill Road at Irving Street (P.M. Peak);
- Southbound 16th Street at Park Road (Weekend MIDDAY); and
- Southbound 14th Street at Park Road (Weekend MIDDAY).

In many cases, delays at these intersections can be addressed by retiming signals to better accommodate traffic. As an example, at the intersection of 16th Street and Park Road, drivers on both northbound and southbound 16th Street are facing few delays, but drivers approaching this intersection on Park Road are facing significant delays. Retiming the signal to provide more green time for those on Park Road would alleviate some of the delay for drivers on Park Road while still providing sufficient green time on 16th Street. Some general conclusions can be drawn from the signal analysis:

- Peak-period cycle lengths, now up to 100 seconds, are too long. Reduced cycle lengths would improve the level of service at intersections and reduce delay for pedestrians. Reduced cycle lengths also would discourage jaywalking.
- Signal timings tend to overemphasize north-south travel during peak periods. Delays are more consistent on the eastbound and westbound approaches to intersections. Adjusting the existing signal timings to better optimize traffic movements on all approaches would benefit both drivers and pedestrians.

In addition to modeling traffic signal operations at each of these 12 intersections, field visits were conducted across the neighborhood to observe potential traffic operations issues. Some specific intersections and identified issues are discussed below.

16th Street/Park Road – This intersection appears to cause consistent vehicle delays, particularly on Park Road. At times, traffic along Park Road backs up to 14th Street. During the morning and evening peak, school drop-offs on Park Road just to the west of 16th Street contribute to congestion at the intersection by reducing, at times, the number of lanes on Park Road to just one.

16th Street Southbound – On-street parking is causing significant delays during off-peak hours on southbound 16th Street between Irving Street and Spring Street. On-street parking regulations do not appear to be enforced outside of weekday hours.

14th Street/Monroe Street – The eastbound and westbound approaches at Monroe Street are offset. Both approaches are given green time, but opposing drivers often find the intersection confusing and cars frequently stop in the middle of the intersection because of a confusing signal setup.

Figure 1.7 Congestion and Level of Service
A.M. Peak

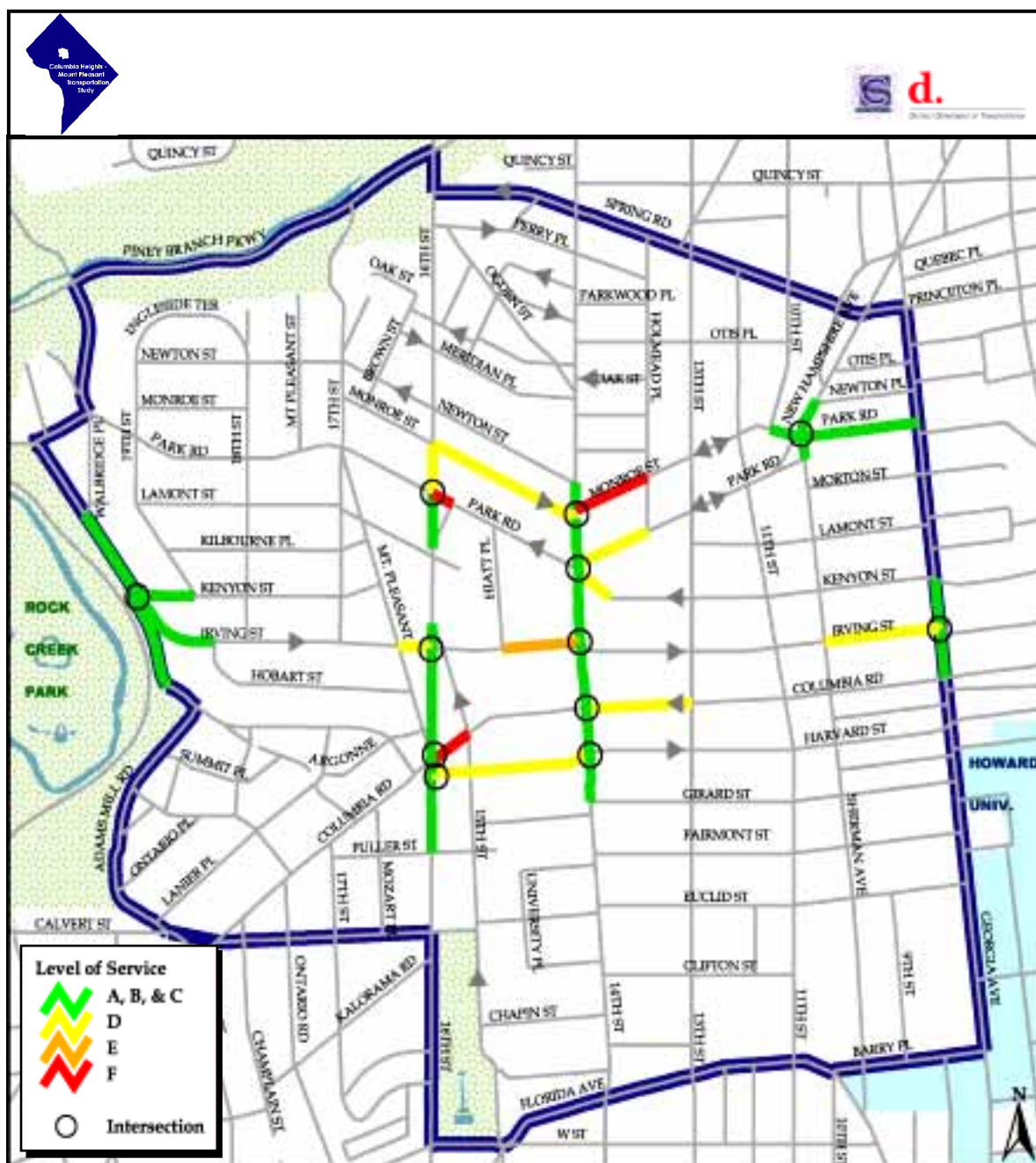


Figure 1.8 Congestion and Level of Service
P.M. Peak

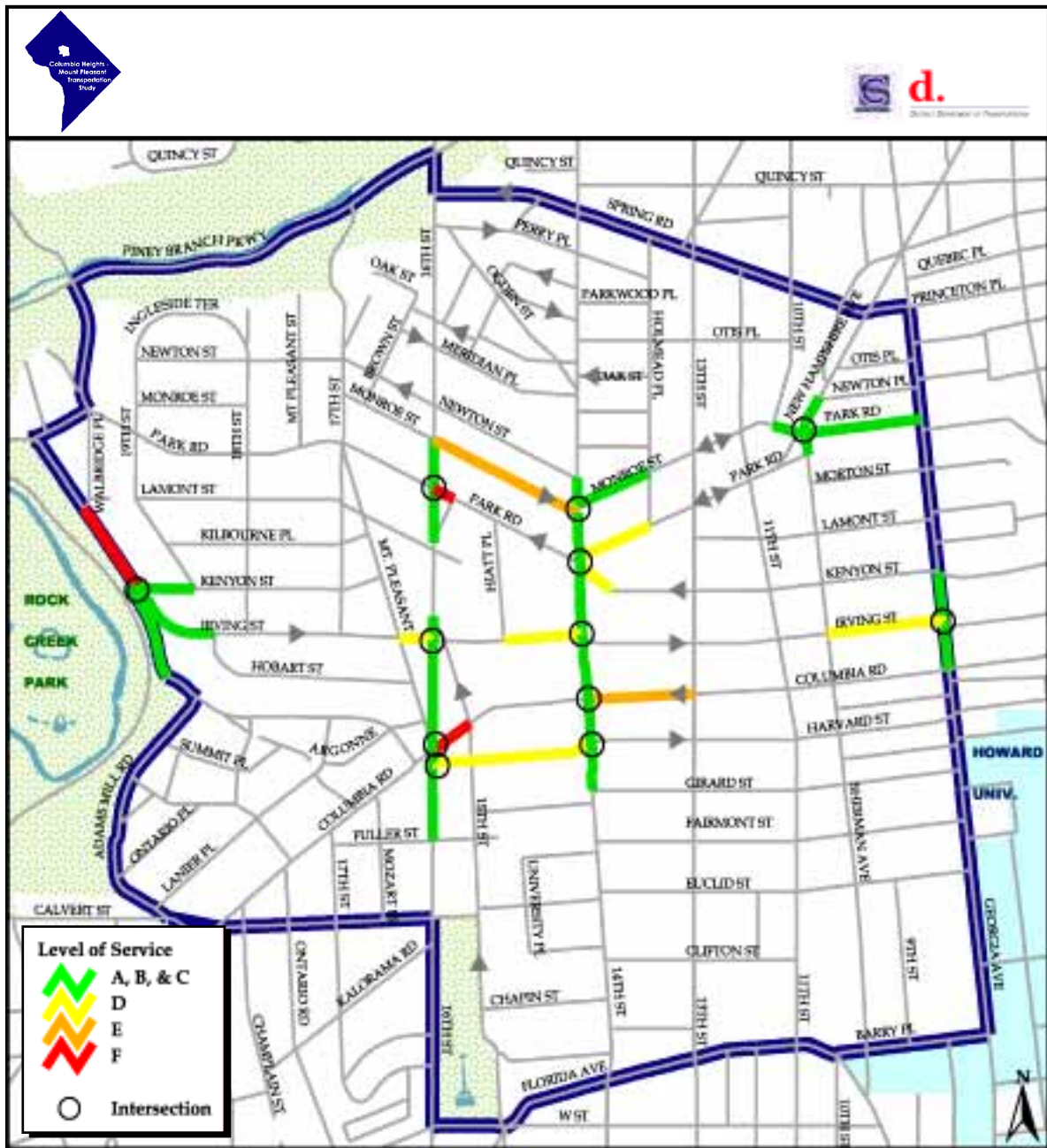
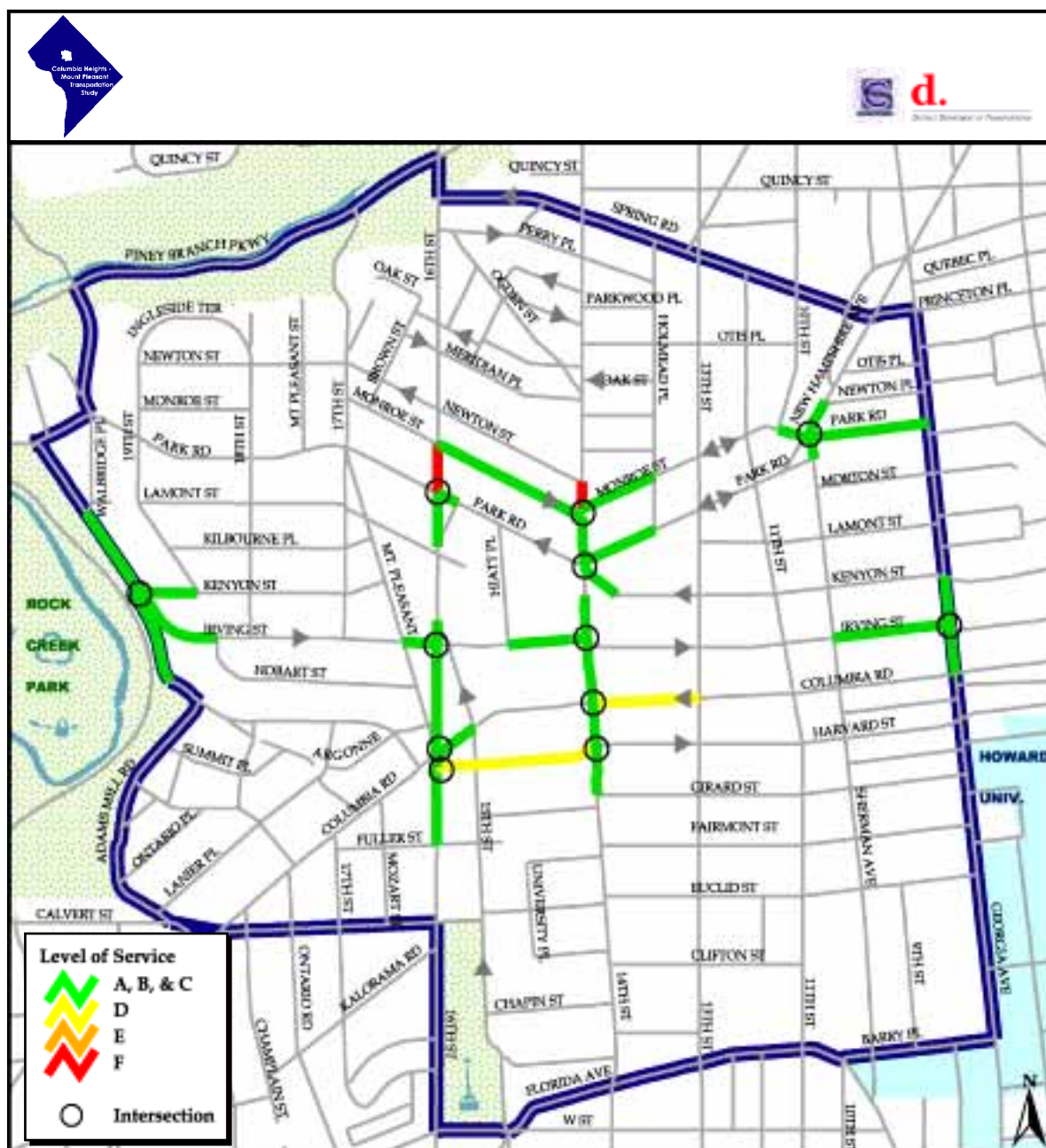


Figure 1.9 Congestion and Level of Service
Weekend Midday



14th Street/Irving Street – The southbound 14th Street approach to this intersection has only two lanes, but widens out to provide a pick-up/drop-off zone along the curb for buses. The left-most lane is designated as a left-turn only lane at the intersection, resulting in only one effective southbound through lane. Drivers often find this lane-use configuration confusing and field observations indicate that drivers often merge close to the intersection contributing to vehicle delays.

16th Street/Irving Street – Drivers headed southbound on 16th Street are permitted to turn left onto Irving Street. However, the close proximity of the intersection of 15th Street/Irving Street provides space for only a few vehicles to queue. Queued vehicles thus regularly extend back onto 16th Street.

16th Street/Mount Pleasant Street – A signal provided at the 16th Street/Mount Pleasant Street intersection is intended to let drivers headed northbound on 16th Street turn left onto Mount Pleasant Street. Drivers are stopped on southbound 16th Street to allow for this left turn, but northbound drivers are provided with a continuous green signal indication. The intersection is thus confusing (and potentially dangerous) to pedestrians and jaywalking is relatively common.

16th Street/Harvard Street – Southbound 16th Street drivers are prohibited from making a left turn onto Harvard Street. However, during the field data collection efforts, a number of vehicles were observed turning left onto Harvard Street. Several area residents stopped to tell the data collection staff that this prohibition on left turns limits access for neighborhood residents.

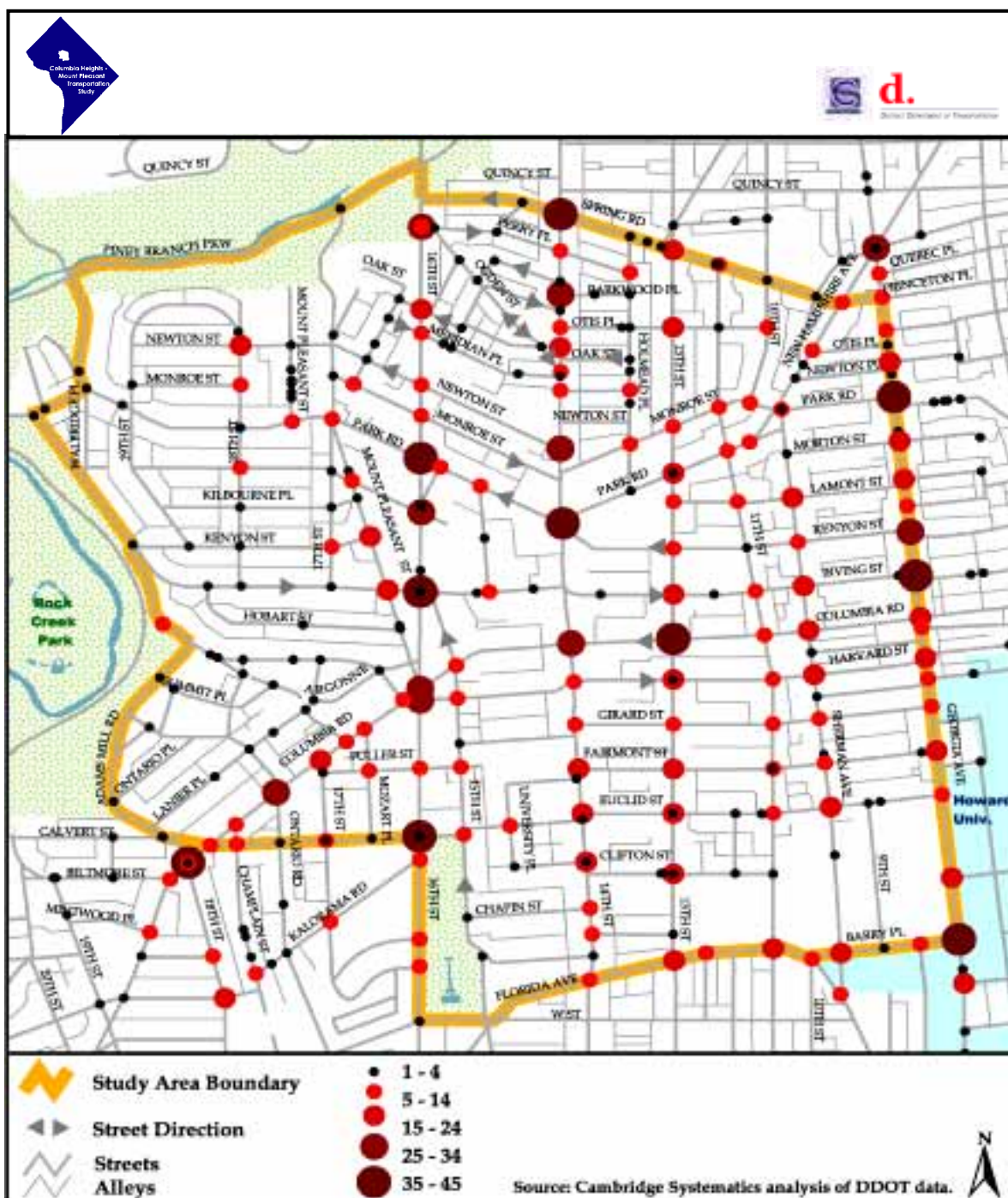
Appendix A includes a memorandum with a detailed assessment of each intersection based on existing traffic counts.

Crashes Concentrated on High-Volume Routes

Automobile crashes are concentrated on roadways with higher traffic volumes, such as 16th Street, 14th Street, Georgia Avenue, and Columbia Road. Figure 1.10 displays vehicular crashes for each intersection within the study area over a three-year period (1999-2001). Three intersections show a relatively high number of both pedestrian and automobile crashes:

- 16th Street/Irving Street;
- 14th Street/Park Road/Kenyon Street; and
- 13th Street/Columbia Road.

Figure 1.10 Automobile Crashes
1999-2001



■ 1.4 Pedestrian/Bicycle Issues

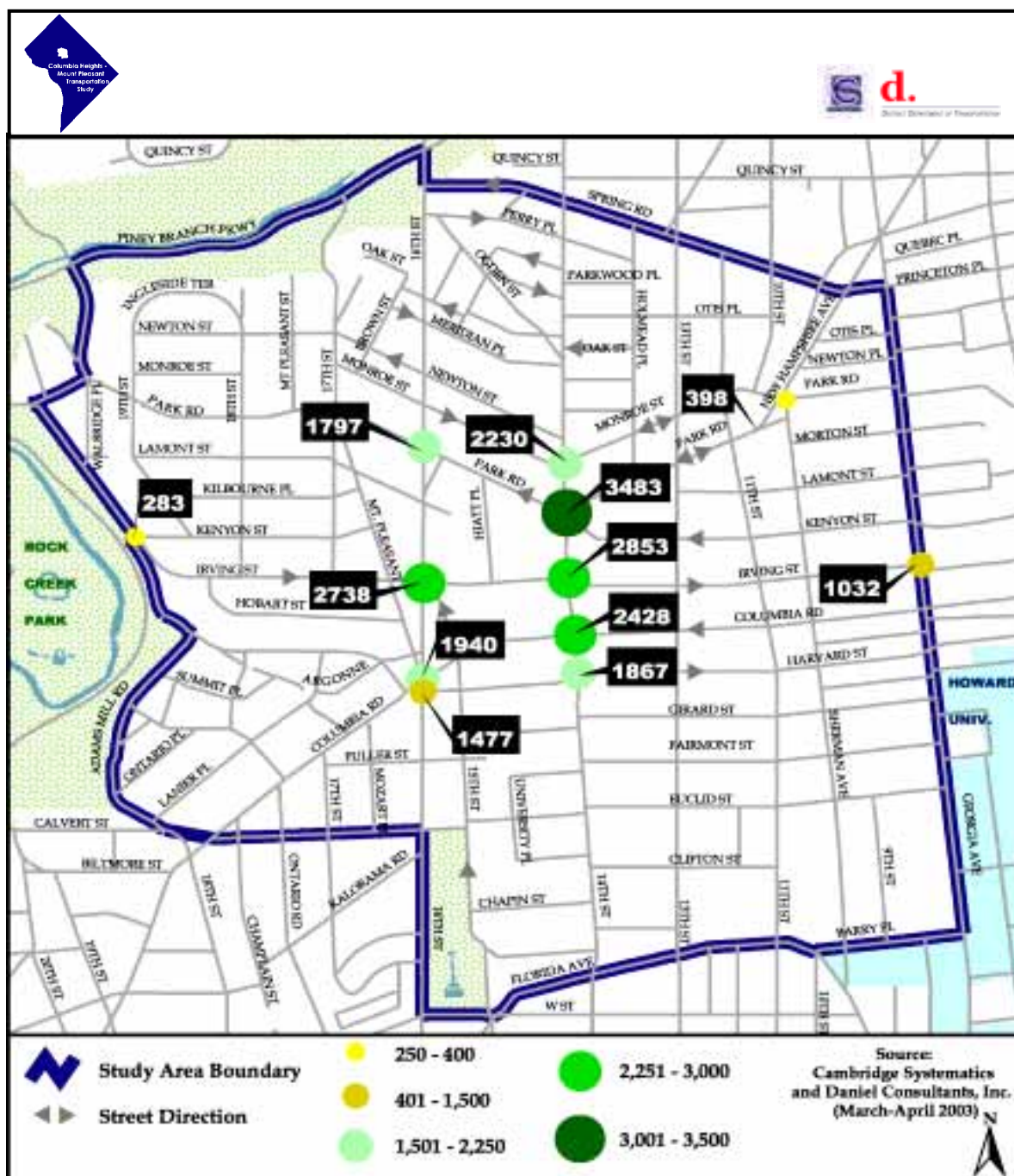
Columbia Heights and Mount Pleasant have developed as pedestrian-oriented neighborhoods. Walking is an important part of the local transportation system, reflected in the significant level of pedestrian activity throughout the neighborhood. Unfortunately, high volumes of traffic, particularly during peak hours, have created pedestrian safety issues at a number of locations. The balance between moving traffic to limit congestion and providing for a safe pedestrian environment proves a challenge in this part of the District. This subsection details the assessment of pedestrian conditions and, in particular, identifies locations where pedestrian safety is of a particular concern.

A Number of Intersections Have High Levels of Pedestrian Activity

Pedestrian activity is high throughout the study area, particularly in areas with a concentration of commercial development and in the vicinity of major transit service. Figure 1.11 shows the total number of pedestrian street crossings at each of the 12 intersections at which peak-period vehicular and pedestrian counts were taken. This figure displays estimated 24-hour pedestrian counts at each intersection that have been factored based on the observed pedestrian counts taken during the four peak hours of travel. The highest levels of pedestrian activity are found in the areas immediately surrounding the Columbia Heights Metrorail Station. The highest pedestrian volumes were at the following intersections (in order):

- 14th Street/Park Road/Kenyon Street;
- 14th Street/Irving Street;
- 16th Street/Irving Street; and
- 14th Street/Columbia Road.

**Figure 1.11 Pedestrian Street Crossings
Estimated 24-Hour Counts**



Intersections with High Pedestrian Accident Rates

Pedestrian safety is a particularly critical issue in neighborhoods such as Columbia Heights and Mount Pleasant where pedestrian activity is so significant. Much of the new development planned in the heart of Columbia Heights is expected to attract patrons that walk or take transit. If these new developments are successful in encouraging transit and pedestrian travel, the pedestrian environment must be comfortable and safe. As a part of this study, historical data on pedestrian accidents were reviewed. Figure 1.12 shows pedestrian accidents, by intersection, for the five-year period of 1997 to 2001. In most locations, the number of pedestrian accidents was relatively low with two or fewer accidents during the five-year period. However, several intersections and, in some cases, a series of intersections in close proximity show higher rates of pedestrian accidents. In some cases, the higher rates of pedestrian accidents may be, in part, the result of high levels of pedestrian activity but, in some cases, intersection design or operational issues may be contributing factors. Some locations of particular concern include:

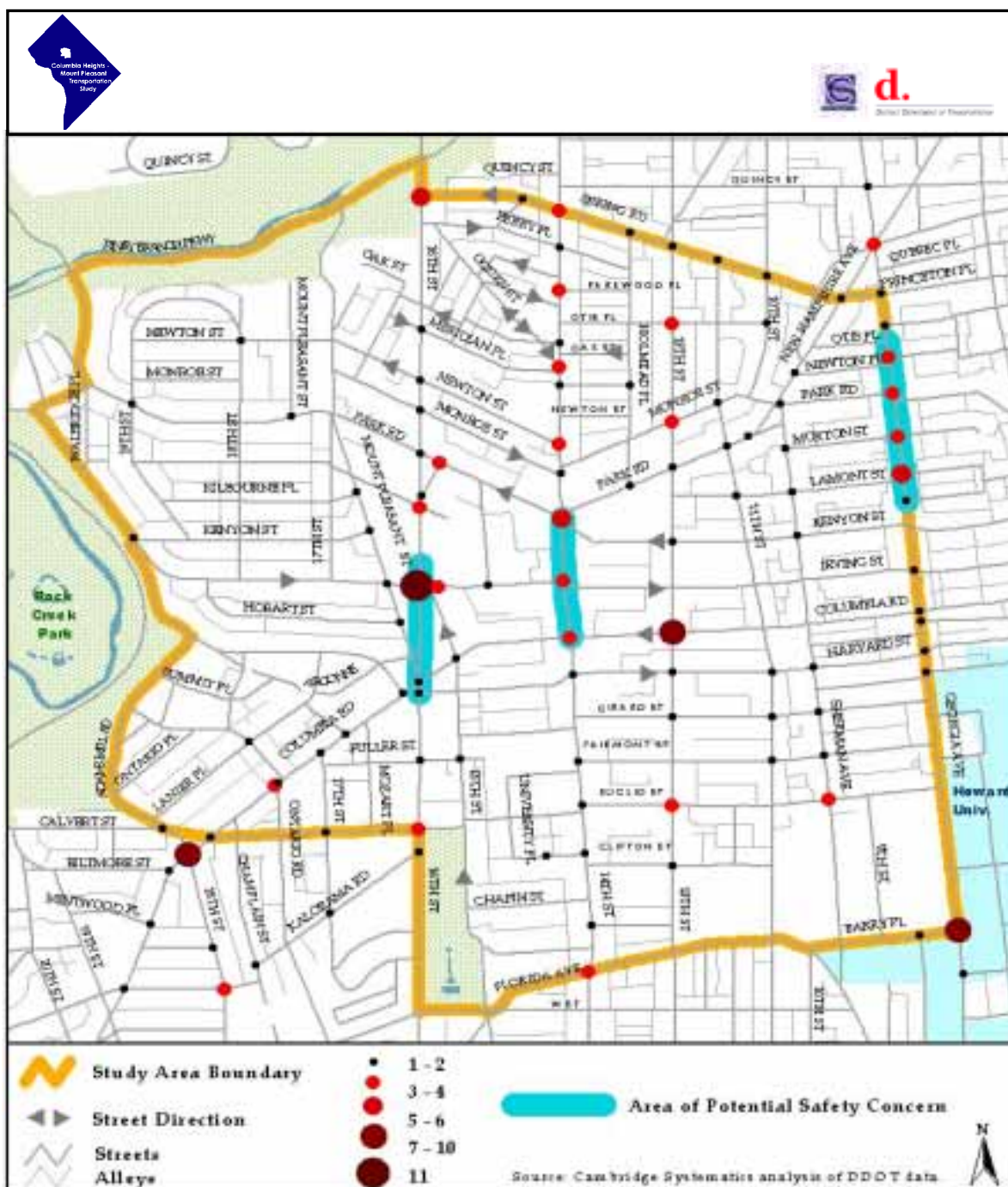
- 16th Street/Irving Street;
- 14th Street/Park Road;
- 14th Street/Irving Street;
- 14th Street/Columbia Road;
- 13th Street/Columbia Road (recent improvements have been made to pedestrian striping);
- Georgia Avenue (between Newton Street and Lamont Street); and
- 14th Street (between Monroe Street and Spring Street).

The intersection of 16th Street and Irving Street had the highest number of pedestrian crashes during this period. This intersection is likely to experience an increase in pedestrian activity as residents of the Adams Morgan and Mount Pleasant neighborhoods cross 16th Street to access the new retail development and the Columbia Heights Metrorail Station. Pedestrian activity also is likely to increase at the intersections of 14th Street/Park Road, 14th Street/Irving Street, and 14th Street/Columbia Road. Improving pedestrian safety should be a high priority at all of these locations.

Inadequate Pedestrian Crosswalks and Signals

In general, pedestrian markings are not clearly visible in many locations. In some cases, the striping has faded or is not visible to automobiles. In others, such as along Georgia Avenue, pedestrian crosswalks are marked at unsignalized intersections, but are not clearly visible to drivers. These crosswalks provide a false sense of safety to pedestrians and may explain higher accident rates.

Figure 1.12 Pedestrian Crashes and Potential Safety Issue Areas
1997-2001



Incomplete Pedestrian Networks

In several locations within the study area, pedestrian networks are interrupted to favor automobile traffic. In particular, pedestrian movements are not allowed across some legs of these intersections to facilitate the movement of automobile traffic such as:

16th Street/Irving Street – Pedestrians walking northbound on the east side of 16th Street are not permitted to cross Irving Street. They are directed to cross 15th Street, then cross Irving Street, and walk back to 16th Street. Although pedestrian markings clearly indicate that pedestrians should not cross Irving Street at 16th Street and the traffic signals do not provide for a safe crossing, pedestrians continue to make this movement on a regular basis.

16th Street/Pine Street – Vehicles headed westbound on Park Road from northbound 16th Street are required to make a right onto Pine Street and then a left on Park Road. Pine Street is designed to allow a relatively high-speed right turn off of 16th Street. Barriers have been erected along the east side of 16th Street to prevent pedestrians from crossing Pine Street. However, pedestrians continue to make this movement just beyond the end of the barriers at a point of limited visibility for drivers approaching this location on northbound 16th Street.

16th Street/Mount Pleasant Street – A signal is provided at 16th Street/Mount Pleasant Street to allow automobiles to make left turns from northbound 16th Street onto Mount Pleasant Street. However, pedestrians are not permitted to cross 16th Street at this location. Northbound drivers on 16th Street are provided with a continuous green light and are not required to stop. However, when southbound traffic stops, pedestrians routinely cross 16th Street at this location. The intersection appears to be confusing to pedestrians.

Bicycle Lanes Limited

Within the study area, the only officially designated bicycle lanes are found on 14th Street north of Newton Street and along Irving Street between Adams Mill Road and Mount Pleasant Street. DDOT is currently evaluating the potential location of additional bicycle routes in the neighborhood as an element of the larger District Bicycle Plan. The study area does not currently have a connected network of bicycle facilities. However, bicycle parking is provided at the Metrorail Station. Bicyclists also are permitted to ride on sidewalks in the neighborhood.

Bicycle counts at 12 intersections in the neighborhood indicate bicycle activity is highest along 16th Street, with as many as 60 bicycles during peak hours (the intersection of 16th Street and Columbia Road). Although bicycle lanes are marked along 14th Street, bicycle volumes are lower than along 16th Street, with the highest peak-hour count of 24 bicycles (at 14th Street/Harvard Street). Increased retail development along 14th Street will likely increase bicycle activity.

■ 1.5 Transit

The Columbia Heights Metrorail Station began service on September 18, 1999, as a part of an extension of the Metrorail Green Line. This line is now open from Branch Avenue in Prince George's County, Maryland, to Greenbelt in Prince George's County, Maryland, and connects to a number of other major Metrorail lines.

Ridership at Columbia Heights Metrorail Station Continues to Increase

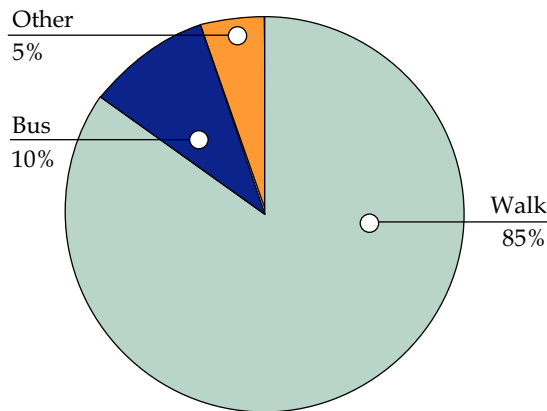
The Columbia Heights Metrorail Station serves residents in the Columbia Heights and Mount Pleasant neighborhoods. Weekday ridership in January 2003 at the Station averaged 5,500 passengers entering and 5,100 passengers exiting the Station. Overall, the Station has experienced a 35 percent growth in average weekday ridership between 2000 and 2002.

Table 1.5 Columbia Heights Metrorail Station Ridership

2000 Average Weekday Ridership	2001 Average Weekday Ridership	2002 Average Weekday Ridership	Percent Change 2000-2002
3,960	4,770	5,350	35%

Most Metrorail Riders Arrive on Foot

Most riders at this Metrorail Station are arriving on foot. As shown in Figure 1.13, 85 percent of all passengers walk to the Station. Another 10 percent take the bus to the Station and just five percent use another mode, such as a bicycle, getting a ride, or driving and parking in the neighborhood. The high level of pedestrian access to this Station emphasizes the need to focus on pedestrian improvements as a part of this transportation study.

Figure 1.13 Mode of Access to Columbia Heights Metrorail Station

High Levels of Bus Service Provided in Study Area

The study area is served by a network of 19 WMATA bus routes. A total 11 routes directly serve the Columbia Heights Metrorail Station with other routes (S1, S2, S4, 66, 68, 70, and 71) serving the north-south corridors along 16th Street, 11th Street, Sherman Avenue, and Georgia Avenue. Route 42 originates in and serves the Mount Pleasant area. High levels of service are provided on a number of routes with headways as short as four minutes during peak hours of travel. Service is much less frequent on the weekends.

Several changes were made to area bus service upon the opening of the Metrorail Station in Columbia Heights. In September 1999, three routes originally serving the Columbia Heights area (Routes 60, 62, and 64) were shortened to become feeders to the Georgia Avenue-Petworth Metrorail Station. Two new routes, 66 and 68 along 11th Street and Sherman Avenue, were created to replace Routes 60, 62, and 64. Routes H5, H7, H1, and S1 only operate during peak hours on the weekdays.

Table 1.6 WMATA Metrobus Route and Service Frequency

Route(s)	Description	Service Frequency (Minutes)		
		Weekday Peak	Weekday Off-Peak	Average Weekend (Sat./Sun.)
42	Mount Pleasant Line	4	10	13
52, 53, 54	14 th Street Line	5	8	13
66, 68(a)	Petworth-11 th Street	4	14	25
70, 71	Brightwood-Petworth, Georgia Avenue-7 th Street Line	8	10	12
H1	Brookland-Potomac Park Line	14	-	-
H2, H3, H4(b)	Crosstown Line	5	18	23
H5, H7	Columbia Heights-Pleasant Line (Urban Circulator)	17	-	-
H8, H9	Park Road-Brookland Line	12	26	25
S1	16 th Street Potomac-Park Line	6	-	-
S2, S4	16 th Street Line	4	8	10

Source: WMATA Regional Bus Study.

Bus Ridership Relatively Stable

Since 1995, overall ridership on bus routes that serve the study area has declined by about five percent. However, most of this change is because of service changes and ridership on individual routes has continued to increase despite the opening of the Columbia Heights Metrorail Station.

Table 1.7 WMATA Metrobus Ridership

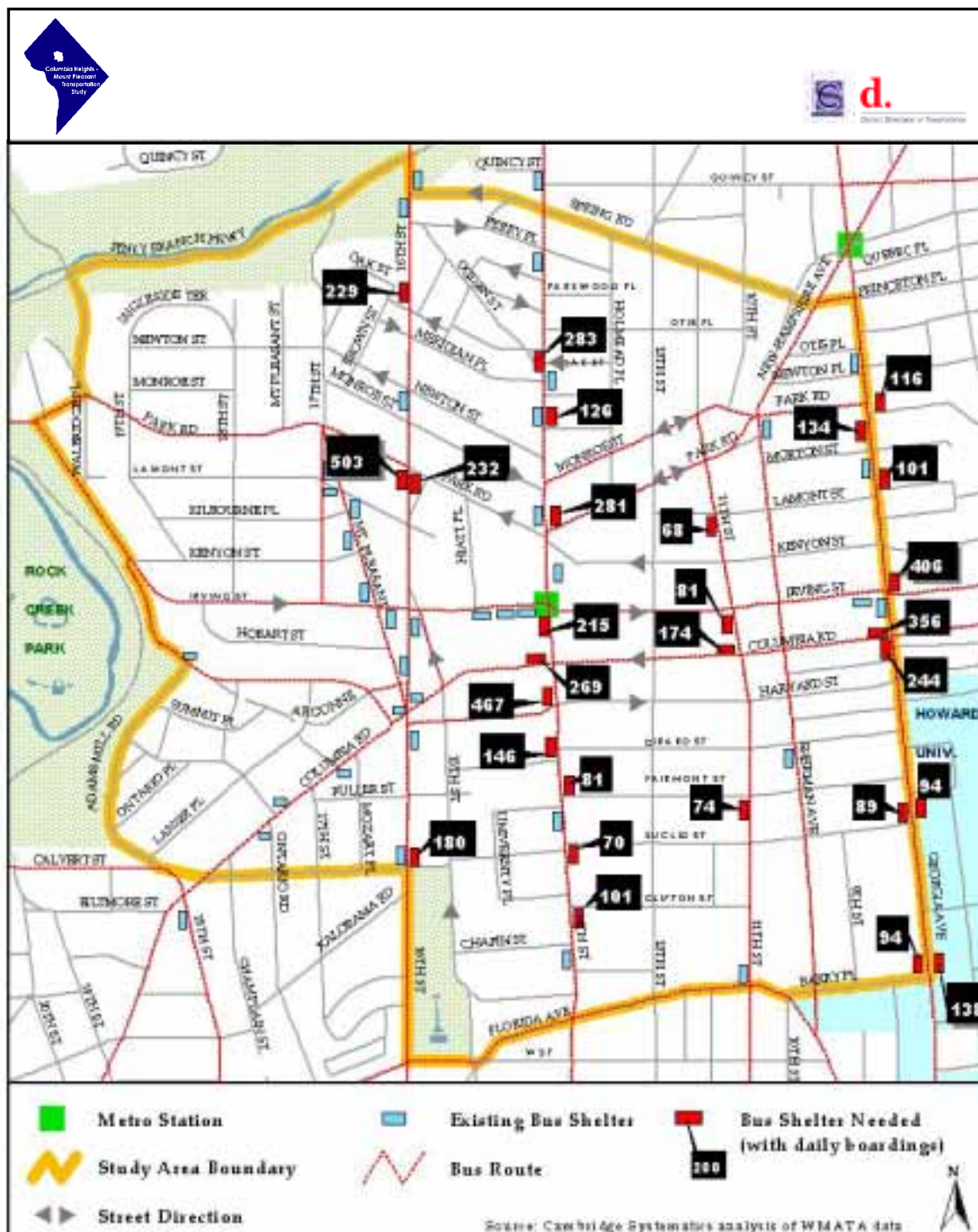
Route(s)	Spring 1995	Spring 1999	Spring 2002
42	11,103	9,846	10,821
52, 53, 54	14,655	16,054	16,461
66, 68	N/A	N/A	3,608
60, 62, 64	12,601	10,975	N/A
70, 71	18,162	18,871	20,161
H1	N/A	N/A	551
H2, H3, H4	10,355	8,347	7,602
H5, H7	N/A	N/A	342
H8, H9	2,516	2,666	3,847
S1	1,413	1,389	1,892
S2, S4	14,859	15,537	16,395
Totals	85,664	83,685	81,680

Source: WMATA.

Bus Shelters Lacking

As indicated by the high levels of observed bus ridership in the neighborhood, bus service continues to play a critical role in the neighborhood transportation system. Many area residents have suggested that there is a need to add and improve bus shelters throughout the neighborhood. WMATA determines the location of bus shelters based on criteria developed by the Transit Cooperative Research Program (TCRP), with a general threshold of 50 boarding passengers per day justifying the installation of a passenger waiting shelter. Figure 1.14 shows the location of existing bus shelters and as well as those bus stops throughout the neighborhood that warrant a shelter based on boarding data. According to WMATA, the focus is on providing shelters for those boarding buses headed in the southbound direction, towards downtown. Within the Columbia Heights and Mount Pleasant neighborhoods, a number of bus stops with a significant number of boardings also are found on routes headed in the northbound direction. In some instances, individual bus stops with observed boarding volumes in excess of 400 passengers per day do not have shelters provided.

Figure 1.14 Bus Shelter Needs Assessment



■ 1.6 Parking

This subsection details the approach and evaluation of the District's management of existing on-street parking within one-quarter mile of the Columbia Heights Metrorail Station (also known as the "core area") based on the following actions:

- Performance and analysis of a comprehensive series of parking activity surveys;
- Feedback from neighborhood residents obtained in community meetings; and
- General observations of both on- and off-street parking conditions.

This analysis consisted of an inventory of all blocks within the core area to determine the number of potential parking spaces and to survey existing on-street parking regulations. In addition, site visits were conducted to assess the overall level of use within the neighborhood. Parking activity surveys were conducted on all 60 of the block faces within the core area between May 29 and June 28, 2003. Surveys were conducted during the midday starting between 10:30 a.m. and 11:30 a.m., and during the evening after 6:30 p.m. or later when rush-hour parking restrictions are no longer in place. Surveys were conducted during the following periods:

- Weekday midday;
- Weekday evening;
- Saturday midday; and
- Saturday evening.

The surveys provided information on the following parking indicators for each type of curb regulation (except for street cleaning and rush-hour regulations):

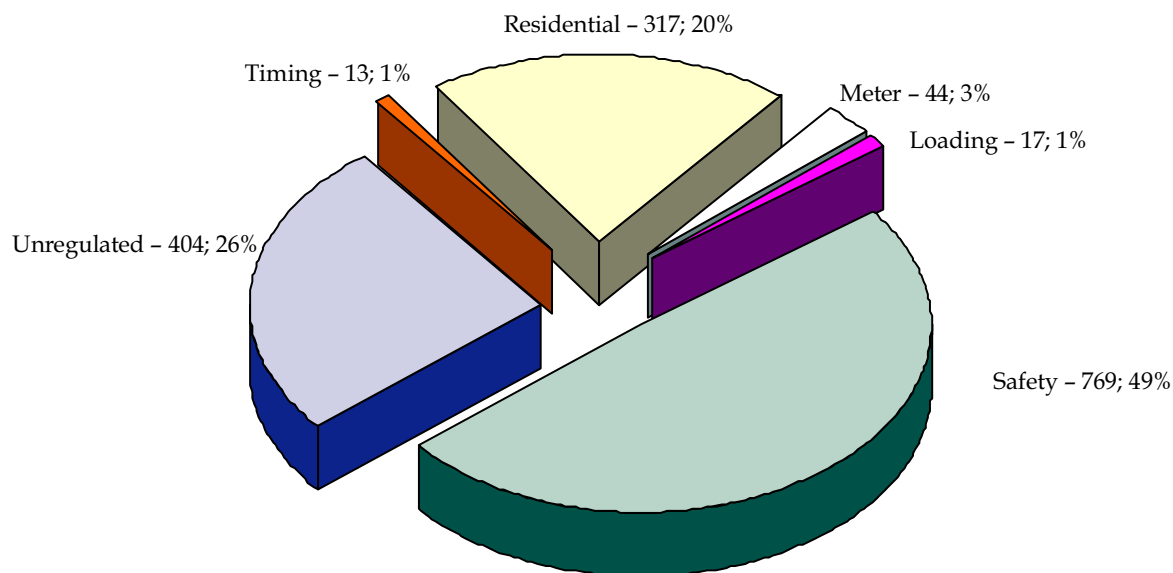
- Parking occupancy and vacancy rates;
- Parking violation rates; and
- Space turnover and average parking durations for meter, timing, and residential parking regulations.

On-Street Parking is Primarily "No Parking," "Residential Permit Parking," and Unregulated

The core area has a total inventory of 1,564 potential on-street parking spaces, 20 percent of which are governed by Residential Permit Parking (RPP) restrictions during primary daytime hours (7:00 a.m. through 8:00 p.m.). As shown in the following chart, parking safety regulations (including bus zones, crosswalk curb-cuts, hydrants, driveways, no stopping, and no parking regulations) comprise the largest use of on-street space, at approximately one-half of the available curb space. Unregulated spaces and residential

parking spaces represent the next two largest uses of curb space, at 26 percent and 20 percent, respectively, while meters account for only three percent of the total. Miscellaneous spaces such as time-limited parking and loading zones account for two out of every 100 spaces.

Figure 1.15 Core Area Parking Regulations



The following tables detail the location and time periods for meters, residential parking permit, timed parking, and bus zones. Detailed information regarding the location of residential and timed parking, as well as bus zones (based on the number of standard car lengths) are provided below.

Table 1.8 Parking Inventory – Metered Regulations

Street	Block	Side	Metered Spaces	Hour Limit	Start Time	End Time	Start Day	End Day	Hourly Rate
14 th Street	3401	W	4	1	700	1830	M	F	\$0.50
14 th Street	3400	E	9	1	700	1830	M	F	0.50
Monroe Street	1300	N	2	1	700	1830	M	F	0.50
Monroe Street	1400	N	4	2	700	1830	M	F	0.50
Monroe Street NW	1500	S	5	2	700	1830	M	F	0.50
Park	1400	S	20	1	700	1830	M	F	0.50

Table 1.9 Parking Inventory – Residential Parking Regulations

Street	Block	Side	Residential Spaces	Hour Limit	Start Time	End Time	Start Day	End Day
13 th Street	1300	E	13	2	700	2030	M	F
13 th Street	2900	E	9	2	700	2030	M	F
13 th Street	2900	W	9	2	700	2030	M	F
13 th Street	3018	W	13	2	700	2030	M	F
13 th Street	3201	E	13	2	700	2030	M	F
13 th Street	3232	W	12	2	700	2030	M	F
14 th Street	2800	E	5	1	700	1830	M	F
14 th Street	2900	E	6	1	700	1830	M	F
Columbia	1300	S	36	2	700	2030	M	F
Columbia	1500	S	11	2	700	2030	M	F
Harvard	1500	N	8	2	700	2030	M	F
Hiatt Place	3100	E	10	2	700	2030	M	F
Holmead	3300	E	9	2	700	2030	M	F
Holmead Place	3300	W	14	2	700	2030	M	F
Irving	1300	N	30	2	700	2030	M	F
Monroe Street	1300	N	18	2	700	2030	M	F
Monroe Street	1400	N	44	2	700	2030	M	F
Monroe Street NW	1500	S	43	2	700	2030	M	F

Table 1.10 Parking Inventory – Timed Parking Regulations

Street	Block	Side	Timed Spaces	Hour Limit	Start Time	End Time	Start Day	End Day
14 th Street	3300	E	4	1	700	1830	M	F
14 th Street	3000	W	4	1	700	1830	M	F
Irving	1400	N	5	0.5	930	1600	M	F

Table 1.11 Parking Inventory – Bus Zone Regulations

Street	Block	Side	Bus Zone Spaces	Start Time	End Time	Start Day	End Day
14 th Street	2800	E	9				
14 th Street	2800	W	4				
14 th Street	2900	E	5				
14 th Street	3100	E	6				
14 th Street	3300	E	9				
14 th Street	3400	E	5				
14 th Street	2900	W	3				
14 th Street	3000	W	12				
15 th Street	3000	E	1				
Columbia	1400	N	7				
Irving	1100	S	2				
Irving	1300	S	3				
Irving	1300	S	1				
Irving	1400	S	1				
Irving	1400	S	1				
Irving	1400	S	23	700	1830	M	F
Irving	1600	S	8				
Park Road	1300	N	5				
Park Road	1300	N	4				

Limited Metered Parking is Available

Only 44 metered spaces are available within the core area and are concentrated along six block faces, including 14th Street, Monroe, and Park. Given plans for additional street-level retail along 14th Street, it is likely that the demand for metered parking will increase. The potential exists to increase the number of metered parking spaces along 14th Street through re-regulation of curb parking space to support the additional short-term parking demands that arise as a result of planned growth and development.

Parking Violation Rates are Low

As shown in Tables 1.12 through 1.14, it appears that public compliance with parking restrictions is generally high. Parking occupancy and violation rates for meter and residential zones, and vacancy rates in safety regulation spaces (key indicators of effective parking management), are well within expected levels for a neighborhood such as Columbia Heights, which generally is not assigned the same frequency of enforcement patrol as a central business district. However, the 1.5-hour average parking duration at a limited number of one-hour meters may indicate that the meter time limit may be insufficient for local short-term parking needs. However, few meters are available in the neighborhood, so information on meter use is relatively limited.

Table 1.12 Parking Survey Indicators – Thursday Midday

Thursday Midday	Spaces	Total Occupancy Percent	Violation Percent	Average Vehicle Stay
No Parking	138	2%	0%	
Bus Zone	56	2	2	
No Standing	27	7	1	
Unregulated	55	45	N/A	
RPP	47	77	5	1.3 hours
Meters	4	56	6	1.3 hours
Timed Zone	4	69	38	2.2 hours

Table 1.13 Parking Survey Indicators – Wednesday and Thursday Evening

Wednesday and Thursday Evening	Spaces	Total Occupancy Percent	Violation Percent	Average Vehicle Stay
No Parking	138	8%	1%	
Bus Zone	56	1	0	
No Standing	27	12	0	
Unregulated	55	53	N/A	
RPP ¹	47	74	1	1.3 hours
Meters ²	4	50	0	1.5 hours
Timed Zone ²	4	50	0	2.0 hours

Note: ¹ RPP regulations end at 8:00 p.m.

² Meter and timing regulations end at 6:30 p.m.

Table 1.14 Parking Survey Indicators – Saturday Midday

Saturday Midday	Spaces	Total Occupancy Percent	Violation Percent	Average Vehicle Stay
No Parking	138	7%	1%	
Bus Zone	56	3	4	
No Standing	27	46	15	
Unregulated	55	28	N/A	
RPP ¹	47	69	0	2.0 hours
Meters ¹	4	63	0	1.4 hours
Timed ¹	4	94	0	3.0 hours

Note: ¹ RPP, meter, and timing regulations are not in effect on Saturdays.

It appears that the District's combination of aggressive ticket fines and penalties, coupled with a strong ticket processing system and a sufficiently credible enforcement presence, have been able to provide a strong deterrent to illegal parking. Although no tickets were observed for *curb* parking violations (such as unpaid meters), tickets were observed for *non-curb* violations, such as the absence of registration plates, the actual number of violations appears to be relatively low.

As seen in the tables above, several key parking indicators are detailed for the days and survey periods in question. Expected occupancy levels for locations with safety regulations (no

parking, bus zone, and no standing) should not exceed 15 to 20 percent. During weekdays and weekday evenings, this range is met. However, on Saturday, the 46 percent occupancy level in no-standing zones indicates a substantial degree of motorist disregard for this regulation. Although violations are low on weekdays, it appears that the expectation of enforcement is lower on weekends. This is likely as a by-product of the fact that meter and RPP regulations are not in effect (and therefore not enforced) on that day. This finding is consistent with neighborhood concerns regarding illegal parking on streets, such as 16th Street, that contribute to traffic delays in the neighborhood on weekends.

Midday RPP and meter occupancy is well within the accepted norm, which should be within the range of 50 and 90 percent, as are these regulations' respective violation rates, which should be less than seven percent. The levels of occupancy suggest that on-street parking is generally adequate within the core area. Although a limited sample is presented, it is notable that meters are occupied to a greater degree on midday Saturday than on weekdays.

Off-Street Parking is not Available in the Neighborhood

No off-street parking is available to the general public within the core area. Opportunities may exist for residential shared parking at selected off-street locations, based upon a survey of un- and underutilized surface lots. A total of 296 off-street parking spaces were noted among seven off-street lots that could support shared parking. At present, the Baptist Church at 15th and Columbia Streets appears to offer residents this opportunity. As discussed early in this section, a number of public parking spaces will be constructed with new retail development along 14th Street. However, it is not clear that any of the new spaces will be available to neighborhood residents for long-term parking.

Residents Suggest Other Parking-Related Concerns

Neighborhood residents have voiced a number of concerns as well as suggestions regarding parking. Several specific parking-related issues worth noting:

- Currently, all meter regulations take effect at 7:00 a.m.; however, those on residential blocks, such as 1400 Monroe Street NW, pose an inconvenience for residents who lack available alleyway or other off-street parking. Based on the area, and the distance from the Columbia Heights Metrorail Station, it is unclear why these meters would need to start at this early time given nearby businesses likely are not open at that hour. Residents must relocate their vehicles or risk being ticketed, as is often the case.
- It was observed that a number of parking regulation signs are faded, present confusing messages, and appear to be indicative of poor maintenance. Improving the appearance and clarity of the signs' messages would help avoid motorist confusion and unnecessary tickets, and convey a more positive civic image to the community.

■ 1.7 Conclusion

This section provides a comprehensive summary of key transportation issues in the Columbia Heights and Mount Pleasant neighborhoods. A number of particularly critical issues have been identified including:

- Population is increasing in the study area;
- Local travel is multimodal with significant transit use and high levels of pedestrian activity;
- Significant new development is planned, most in the vicinity of the Columbia Heights Metrorail Station, that will increase demand on the area's transportation system;
- Most intersections are currently operating with an adequate level of service;
- Automobile congestion is occurring at selected approaches to intersections;
- Confusing intersection lane usage and traffic signal displays appear to contribute to observed traffic congestion and vehicular and pedestrian accidents;
- Peak-period traffic congestion could be reduced by selective signal retiming;
- A significant volume of commuter traffic is passing through the neighborhoods during peak hours;
- Pedestrian activity is high, particularly near the Columbia Heights Metrorail Station;
- Several intersections have high pedestrian accident rates;
- Inadequate pedestrian markings are found throughout the study area;
- Pedestrian networks are incomplete in several locations;
- Limited bicycle lanes are provided in the study area;
- Transit use is high with increasing use of Metrorail and stable to increasing bus ridership;
- Most Metrorail riders walk to the Station (85 percent);
- A number of bus stops have inadequate passenger waiting facilities based on the number of observed boardings;
- Adequate on-street parking is available in the core of the study area (within one-quarter mile of the Columbia Heights Metrorail Station);

- Limited on-street metered parking is available;
- No public off-street parking is available; and
- Parking violations are limited during weekends and more common on weekends.

The issues identified in this section were used together with comments provided by the public to identify a series of short- and long-term transportation improvements. Residents were encouraged to provide comments on transportation-related issues at a public information meeting held on June 3, 2003. Comments collected at this meeting are included in Appendix B.